

## **Assessing Acculturative Stress of International Students at a U.S. Community College**

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### **ABSTRACT**

*Research shows that international college students experience high levels of acculturative stress, which can adversely impact their health and college success. The levels of immersion in one's native culture and the culture of the U.S. may impact levels of acculturative stress in international students. This cross-sectional study examined community college international students (n = 243). Immersion in a student's native culture was positively associated with acculturative stress, while immersion in the U.S. culture was negatively associated with acculturative stress. Students who spoke English as their first language and whose families moved to the United States experienced lower levels of acculturative stress. The results of the study imply that some international students may require more support in order to succeed in their college environment.*

**Keywords:** international students, acculturation, acculturative stress, community college students

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**I**nternational students can be a vulnerable and overlooked student population in U.S. undergraduate colleges. They are experiencing the U.S. education system for the first time, while at the same time often learning a new language and learning to live in and adapt to a new host society. The concept of acculturation and acculturative stress is one lens through which

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to study how this population can succeed in their college environment. Many factors like country of origin, family support, immersion in a native or U.S. culture, or native language, can impact the acculturative process and levels of acculturative stress. The purpose of the current study is to assess how students at a large, diverse, urban community college experience acculturative stress.

## **LITERATURE REVIEW**

### **Defining Acculturation**

The concept of acculturation was first introduced as an anthropological phenomenon “which results when a group of individuals having different cultures comes into continuous firsthand contact with subsequent changes in the original cultural patterns of either or both groups” (Redfield, Linton, & Herskovits, 1936, p. 149). Nearly twenty years later in 1954, the Social Science Research Council (SSRC) conducted a systematic investigation to conceptualize a holistic meaning of acculturation, and defined it as a change in culture that is a consequence of direct cultural transmission between two or more cultural systems, as influenced by both ecological and demographic factors. Although this definition has played a significant role in acculturation research, it faced criticism because of a lack of focus on the individual (Graves, 1967) and its emphasis as a group phenomenon. As a result, from the psychological field, two separate definitions emerged led by Graves, who defined acculturation in two distinctive levels: (a) The group level as a collective process in which there is a change in either the native culture or the host culture members or both, and (b) The individual level as the psychological change within the individual as a result of contact with the host society.

Subsequent researchers categorized psychological acculturation into two dimensions (Berry, 1997; Ward & Kennedy, 1994). The first is the psychological dimension that relates to values, ideologies, beliefs and attitudes that define a culture. The second is related to the behavioral aspects which are about how the individual learns and adapts to external aspects of the dominant culture. Berry (2005) has identified the behaviors of integration, assimilation, separation and marginalization as acculturation strategies. Characteristics such as language skills, social skills, and the ability to negotiate the socio-cultural aspects of one’s environment are important during the acculturation process. Berry (1990) concluded that a distinction between process and state of acculturation must be made, by

which the process is a dynamic activity during and after contact, while the state of acculturation is the relatively stable result following the acculturative process. However, despite such extensive efforts to define acculturation, researchers have not yet reached a consensual definition (Mehta, 1998).

### **Acculturation and Stress**

One important phenomenon that has been at the heart of acculturation research is related to the manifestation of acculturation, namely acculturative stress. According to Berry et al. (1987), acculturative stress is defined as impaired physical and psychosocial health in individuals who must adapt to a new culture, and operate in an environment lacking the strength of accustomed cultural attachment, status and social support. Researchers began studying acculturative stress using these constructs to create a model but research was typically limited to migrant and refugee populations (Smith & Khawaja, 2011). Desa, Yusoff, and Kadir (2011) describe acculturative stress as comprised of social, attitudinal, family and environmental factors, often measured by a scale of the same name – the Social, Attitudinal, Familial and Environmental (SAFE) Acculturation Stress Scale. Berry et al. (1987) argued that the relationship between acculturation and stress is sometimes inevitable, and depends on the group of individuals and their characteristics as they enter the acculturation process. The outcome of this process can be enhancement or deterioration of mental health. For example, Torres, Driscoll, and Voell (2012) found that acculturative stress mediated psychological distress ( $p < .05$ ) among over 600 Latino adults.

Five factors that moderate the relationship between acculturation and stress are: (a) the multicultural ideology of the host society; (b) the nature of the acculturating group; (c) the mode of acculturation used by an individual as they adjust to the new environment, which include marginalization, separation, assimilation, or integration; (d) the demographic and social characteristics of the groups (age, gender, length of stay, socio-economic status, prior intercultural experiences); and (e) the psychological characteristics of the individual (cognitive style). In Berry's 2005 review, he found marginalizers (individuals who reject the host society and abandon the traditional culture) experienced more acculturative stress and less adaptation than integrators (individuals who embrace the host society while simultaneously maintaining the traditional culture). Additionally, Berry (2005) found assimilators (acquires the host society

culture and abandons the traditional culture) and separators (rejects the host culture and maintains the traditional culture) experience intermediate levels of both acculturative stress and adaptation. Empirically, studies have validated the special association between acculturative stress and several predictive factors (e.g., Berry et al., 1987); however, the relationship between acculturative stressors and acculturative stress has not yet been clearly established.

### **Acculturative Stress and International College Students**

Ever increasing numbers of foreign students, particularly from China, India, and South Korea, are accessing higher education in the United States. Yeh and Inose (2003) further found students from Asia studying in America had higher levels of acculturative stress than international students from other places such as Europe. The number of international undergraduate and graduate students is up 7.2% from 2012 to 2013 representing a significant cumulative increase and the steepest annual increase in this population to date. (Institute of International Education, 2013). For most international students, language issues are a major acculturation challenge (Wilton & Constantine, 2003). Fritz, Chin, and DeMarinis (2008) found acculturative stress to be more severe for Asians primarily because of the English language difficulties. Similarly, Zhang (2012) found a complementary scenario; as English competency increased, acculturative stress decreased. The lack of English language proficiency can have an impact on how the students communicate with other students and professors during lectures (Lewthwaite, 1996). Lee, Koeske, and Sales (2004) found that comfort with the host language was positively associated with both interpersonal communication and social support. Feelings of isolation and alienation, particularly during the initial phase of the acculturation process, require social, cultural, and often academic adjustments that foster a successful integration into university life. Yeh and Inose found that, among international students studying in the United States from Europe, English fluency, social connectedness, and perceived social support satisfaction significantly mediated acculturative stress and provided a buffering effect. Mahmood (2014) found that among 413 non-urban international college students, participants who had English proficiency also had higher social adaptation and greater college satisfaction.

The variety of coping behaviors used to manage stress produced by the acculturation process has significant health and academic performance implications (Kuo, 2013). For example, when examining the relationship

between acculturative stress, social support and coping, it has been found that parental support and active coping (versus avoidant coping) buffered the effects of high acculturative stress on anxiety and depressive symptoms (Crockett et al., 2007). Further, Berry (2005) found that participants who used the acculturation strategy of integration experienced less acculturative stress and more adaptation. Also, Cho (2014) found among international teens studying in the United States that those using problem-focused or social support coping strategies had more positive school adjustment, while those relying on emotionally focused coping strategies had greater satisfaction of life scores.

Literature reviews pertaining to the salient variables of acculturation, including acculturative stressors encountered frequently by international students, found language barriers, educational difficulties, loneliness, discrimination, and practical problems associated with changing environments (Smith & Khawaja, 2011). More than half of non-natives in college are over the age of 24, one-third have dependents, and three-quarters work part or full time while attending college; these are characteristics that are risk factors for academic failure and college dropout (Hagy & Stanier, 2002). However, Yakunina et al. (2013) reported that personal and multicultural strengths such as growth initiative, hardiness, and universal-diverse orientation can reduce acculturative stress.

For those international students experiencing high levels of acculturative stress, seeking support for issues such as stress management and depression can be daunting, especially for young people. Help seeking requires one to translate the personal domain of psychological distress to the interpersonal domain of seeking help (Rickwood, Deane, Wilson, & Ciarroldi, 2005). Compounding the challenges of seeking support for acculturative stress is the language challenges international students face, having a more limited ability to articulate the systems they are experiencing. While University services such as counseling centers are always made available to students in need, the social stigma of seeing a psychologist and fear of lack of confidentiality are prohibitory to a majority of students (Bradley, 2000). Lewthwaite (1996) noted that students use host families, academic supervisors and mentors as “counselors” during the acculturative process, though students still prefer their peer group from their own home country and other international students as their first choice before approaching faculty (Gillette, 2005). By developing a more comprehensive understanding of how students’ self-identify their acculturative stress, universities and their constituents can develop a deeper understanding of the potential challenges and how to responsibly assist students during their stay

in a new culture. As a result, international students will have the opportunity of experiencing positive academic and social outcomes.

### ***Hypotheses***

The following hypotheses were proposed:

H<sub>1</sub>: The self-reported levels of acculturation in the dominant and ethnic culture of international college students are related to their acculturative stress levels during their college experience.

H<sub>2</sub>: Demographic factors like age, country of origin, native language, will be associated with levels of acculturative stress.

The goal of this investigation is to assess whether international students at a community college experience high levels of acculturative stress. The current research study will contribute to the understanding of acculturative stress faced by international community college students and will help educators, college administration and student services develop lessons and workshops that have the potential to reduce international students' emotional stress, physical ailments, academic failure, and drop out risk. This study is unique because it focuses on international students attending a community college (2-year degree programs) in a major urban city. Community colleges are less expensive than private universities and other colleges in the United States and this attracts an ethnically and economically diverse student body. Furthermore, this research was conducted in a large urban city, which presents international students with a culturally diverse environment, which may not populate community and 4-year colleges in smaller cities. Much of the other research done on international students was conducted with 4-year colleges or post-graduate university students.

## **METHOD**

### **Participants**

The setting for the current study is a large urban community college in New York City. This research was conducted at a large, urban college because the institution has a population of over 23,000 plus students enrolled each semester which was accessible to the researchers. Additionally, international students attending this college come from 161 different countries. Forty degree programs are offered at this community

college including twelve associate in arts degree (AA), nine associate in applied science (AAS), and 19 in associate in science degrees (AS). Each semester there are approximately 800 students who are registered at this college on a student visa and 20 plus students on a temporary visa (BMCC Factsheet, 2016). Participants were recruited through the office providing services to international students enrolled at the college, which ranks fifth nationwide in the number of international students enrolled (Institute of International Education, 2013) and serves students from more than 100 foreign birth countries (BMCC Factsheet, 2016).

## **Procedure**

Eligible participants were invited via posted flyers, bulletin boards, and email notifications as well as by invitation during the first class meeting in various introductory courses among several majors throughout the college that semester. Participation was strictly voluntary and all participants were informed that they could withdraw from the study at any time. One week prior to the administration of the surveys, participants were given a consent form to sign. Institutional Review Board approval was obtained for the protocol described in this study in August 2015. Participants took a pen-and-paper questionnaire which consisted of demographic questions and two scales described below.

## **Measures**

The measures in the study were carefully chosen to reveal how acculturation, acculturative stressors, welfare of international students and their general social status diminishes the relationship amongst acculturation, welfare of international students and acculturative stress. These measures are commonly accepted in the field of acculturation. The demographic questionnaire addressed students' main characteristics such as age, relationship status, purpose for migrating to the United States, country of origin, and some others that were essential for the study.

The SAFE was used to measure international students' acculturative stress. The SAFE is composed of 24 items that measure stress as a result of the acculturation process in four contexts: social, attitudinal, familial and environmental acculturative stress (Mena, Padilla, & Maldonado, 1987). The original study which reported on the creation of this scale found a Chronbach's alpha of .89. The SAFE inventory was calculated by adding the score that participants reported on the individual questions which ranged

from 0 to 5. On the scale, zero meant the participant had not experienced an event that may have caused acculturative stress, and 1 to 5 ranged between “*Not at all stressful*” and “*Extremely stressful*,” respectively. With a scale of 24 questions, the possible range for the inventory was from 0 to 120. The SAFE inventory scale was found to be reliable in the current study—Chronbach’s alpha was .96.

The Stephenson Multigroup Acculturation Scale (SMAS) was also administered. This scale consists of a total of 32 questions that measure the immersion of the participant in their culture of origin (termed Ethnic Society Immersion) and their immersion in the dominant culture, in this case American culture (termed Dominant Society Immersion; Stephenson, 2000). This scale proposes a multi-dimensional concept of acculturation, where people can express strong or weak immersion in both, one or neither of the dominant and ethnic cultures. Some of the indicators of the SMAS are language knowledge, preferred language use, comfort in speaking host language rather than language learned from country of origin, assimilation with host society, use of food and media adoptions in comparison with host society. In Stephenson’s study, the overall Chronbach’s alpha coefficient was found to be .86, but she also used a principle-components analysis to find a two factor solution—these factors were termed Ethnic Society Immersion and Dominant Society Immersion and showed alphas of .97 and .90, respectively. The SMAS was calculated in two subscales: Dominant Society Immersion (SMAS-DSI, 15 questions) and Ethnic Society Immersion (SMAS-ESI, 17 questions). Participants could endorse various statements about their native society and practices and about American society and practices on a scale of 1 to 4, ranging from “False” to “Partly false” to “Partly true” and finally “True.” Because one of the items in the SMAS-ESI did not apply to this sample of international students (namely, “I have never learned to speak the language of my native country”), this item was not included in the calculation. This item also had a negative point-biserial correlation between the endorsement of this item and the total of the subscale. The Chronbach’s alpha of the ESI subscale was .73 and it consisted of 16 items (possible range of 16 to 64).

## **Data Analysis**

Differences between groups were calculated using *t* tests and one-way ANOVAs, as appropriate. Type 1 error rate was set to .05. Where there were multiple comparisons, Bonferroni’s correction was applied to the Type 1 error rate. An analysis was conducted to determine the relationship

between participants' SAFE Acculturative Stress Scale scores and their scores on the SMAS-ESI and SMAS-DSI, respectively, using linear regression.

## RESULTS

A total of 253 students completed the questionnaires. Ten participants reported an age below 18 years of age and were removed from the final results, leaving a final sample of 243. Of those, 55.8% were women, 74.1% were single, and 85.0% did not report English as their native language. The average age of participants was  $M = 23.7$  ( $SD = 4.6$ ), with a median of 23, and a range from 18 to 42. Participants reported fifty-three unique countries of origin all over the world. These countries were coded for geographical region. The largest proportion of students was from East and Southeast Asia (37.0%), followed by the Caribbean (18.5%), South Asia (15.6%), Europe (14.8%), and South America (7.4%). The rest of the students reported being born in Africa, the Middle East, and other regions. The primary reason for moving to United States for most participants was for education (67.9%) and because their family migrated (26.2%). On average, participants reported living in the United States for  $M = 3.9$  months ( $SD = 3.4$ ), with a median of 3 months, ranging from 0 to 21 months.

In the current sample, participants reported a mean of  $M = 64.5$  ( $SD = 28.1$ ) on the SAFE inventory ( $n = 203$ ). Those participants who missed some of the questions on the inventory were marked as missing. Participants who reported their native language as English had a significantly lower score on SAFE ( $M = 47.4$ ;  $SD = 5.3$ ) for native English speakers and  $M = 67.9$  ( $SD = 2.1$ ) for non-native English speakers,  $t(198) = -3.83$ ,  $p = .0001$ . These participants also reported higher levels of immersion in American society, as measured by SMAS-DSI subscale,  $t(223) = 3.68$ ,  $p = .0001$ ,  $M = 47.6$  ( $SD = 1.3$ ) for native English speakers and  $M = 40.9$  ( $SD = 0.7$ ) for non-native English speakers. There were no differences on the SMAS-ESI subscale.

The mean of SMAS-ESI in the current sample was  $M = 57.9$  ( $SD = 6.5$ ), median of 60, ranging from 33 to 64. The DSI subscale was calculated with all of the items of the subscale and the Chronbach's alpha was 0.89 and it consisted of 15 items (possible range of 15-60). The mean of SMAS-DSI in the current sample was  $M = 42.1$  ( $SD = 10.2$ ), median of 44, ranging from 16 to 59.

Participants who reported their reason for moving to the United States as "education" had a significantly lower score on the SMAS-DSI

subscale and the SMAS-ESI scale than those whose families migrated to the U.S. The mean on SMAS-DSI for those who came to the United States for education was  $M = 39.9$  ( $SD = 0.8$ ), while those whose families migrated had a mean of  $M = 47.3$  ( $SD = 1.1$ ),  $t(209) = -4.95$ ,  $p = .0001$  (here significance level was adjusted using Bonferroni's correction). Similarly, the mean on SMAS-ESI for those who came to the United States for education was  $M = 56.9$  ( $SD = 0.6$ ), while those whose families migrated had a mean of  $M = 60.1$  ( $SD = 0.6$ ),  $t(201) = -3.27$ ,  $p = .02$  (here significance level was adjusted using Bonferroni's correction). There were no differences on the SAFE inventory.

In terms of region of the world, there were some significant differences on acculturative stress and acculturation levels,  $F(5, 197) = 3.58$ ,  $p = .004$ . Participants who reported South Asia as their region of birth reported a higher SAFE mean ( $M = 78.2$ ,  $SD = 5.3$ ) compared to those participants who were from Caribbean countries ( $M = 54.4$ ,  $SD = 4.8$ ; here significance level was adjusted using Bonferroni's correction). Participants who were born in Europe reported higher levels of SMAS-DSI than those born in East or Southeast Asian countries,  $M = 45.6$  ( $SD = 1.8$ ) versus  $M = 39.3$  ( $SD = 1.2$ ) respectively,  $F(5, 222) = 3.52$ ,  $p = .004$  (here significance level was adjusted using Bonferroni's correction). There were no significant differences on the SMAS-ESI subscale.

*Table 1.* Regression results (showing significant associations only).

<b>Model</b>	<b>R<sup>2</sup></b>	<b>Independent variables</b>	<b>B</b>	<b>95% CI of B</b>	<b>β (standardized coefficient)</b>
Model 1 – SAFE regressed on SMAS subscales	31.6%	SMAS-DSI	-1.24	[-1.57, -0.90]	-0.46
		SMAS-ESI	1.30	[0.77, 1.83]	0.31
Model 2 – SAFE regressed on SMAS subscales, age, sex, native language English and reason for moving to U.S.	36.2%	SMAS-DSI	-1.25	[-1.62, -0.88]	-0.46
		SMAS-ESI	1.16	[0.6, 1.7]	0.27
		English	-10.39	[-20.42, -0.36]	-0.14

*Note.* SAFE = Social, Attitudinal, Familial and Environmental; SMAS = Stephenson Multigroup Acculturation Scale; SMAS-DSI = Dominant Society Immersion; SMAS-ESI = Ethnic Society Immersion.

A linear regression model regressing the SAFE score on the SMAS-DSI and SMAS-ESI sub-scales was run. This model was significant,  $F(2, 172) = 39.74, p = .0001$ , and explained 31.6% of the variance in SAFE. Both SMAS-DSI and SMAS-ESI were significantly associated with a score on SAFE (Table 1). These results mean that for each unit increase in SMAS-DSI, SAFE decreased by 1.24 units. Similarly, for each unit increase in SMAS-ESI, SAFE increased by 1.30. The effect size for this model was calculated using Cohen's  $f^2$ , which was 0.46 for this model. This effect size is interpreted as large.

Control demographic variables were added to the model—age, sex, native language English, and reason for moving to the U.S. Indicator variables were created for this analysis to make male sex, native English speaking and family migrating to the United States as the reference categories. This model was also significant,  $F(7, 167) = 13.55, p = .0001$ , and explained 36.2% of the variance in SAFE. Both SMAS subscales remained significantly associated with the SAFE score in the same direction (see Table 1). Additionally, one demographic variable, native language English, was significantly associated with scores on SAFE. This means that non-native English language was associated with a score on SAFE that was over 10 points lower than those participants who reported English to be their native language. None of the other demographic factors had a significant relationship with the SAFE score. The effect size for this model was Cohen's  $f^2 = 0.57$ , which is again, a large effect size.

## **DISCUSSION AND CONCLUSIONS**

The current study assessed the levels of culture immersion and acculturative stress in a sample of international community college students at a large urban 2-year college in New York City. The participants came from most geographic regions of the world, were slightly older than traditional U.S. college students (median age 23 with a wide range of ages), and were mostly non-native English speakers.

The participants have a wide age range from 18–42 and thus may have differed developmentally. For the younger students acculturation may be observed as part of adaptation since they are surrounded by native culture at home, and may therefore taking a more positive approach to both cultures which leads to better outcomes in college. Older students may assume different responsibilities and oftentimes experience separation from other students and marginalization. Separation may cause difficulty in cultivating friendships, focusing on college work and holding on to one's traditional

customs and beliefs. Marginalization can also cause guilt and rebellious attitudes, adding more acculturative stress that leads to unhealthy lifestyles and lack of focus within the college environment (Berry, 2005). The current study did not observe differences in acculturative stress in different age groups, but this may be because of a small sample. Further research may illuminate some differences based on age.

Similar to Zhang's (2012) findings, this study found lower acculturative stress among international students whose native language was English. Students whose native language was English also showed higher rates of immersion in American culture than those whose native language was something other than English. English language instruction is an essential part of success in college for those who need it. International students whose native language is not English may require extra academic support from college services and extra social support to combat the higher levels of acculturative stress.

Students from certain regions of the world reported higher levels of acculturative stress and lower levels of dominant culture immersion, particularly those students who came from South and East Asian regions. This confirms previous findings from Yeh and Inose (2003). Previous studies also found that language was an especially significant barrier for students from Asian countries (Fritz, Chin, & DeMarinis, 2008). The current study did not have a large enough sample to examine these differences more deeply, so another study with a larger sample size may be needed. Previous studies have found that students' different coping strategies (task-oriented, emotion-oriented and avoidance-oriented) may mediate the levels of acculturative stress (Ra and Trusty, 2015). Teaching international students various coping strategies may be an effective way to lower levels of acculturative stress. This may be a task for administrative and support services that provide help to international students within colleges.

Like social support and connectedness, identified in Yeh and Inose's research, this study demonstrates that moving to the United States with one's family, rather than only for academic study, is a factor in dominant culture immersion, which in turn is associated with lower levels of acculturative stress. Having one's family in the same country may provide social support, which was identified as a buffer between acculturative stress and mental health in Lee, Koeske, and Sales' study (2004). However, it is rare for international students to move with their families. Thus, the current sample may be unusual in that way, since over a quarter of the participants reported moving with their families to the U.S. This adds to the uniqueness

of the study and shows clear differences in culture immersion. Indeed research findings relating to moving are equivocal.

Different from Fritz, Chin, and DeMarinis, this study did not find a significant direct relationship between reasons for moving to the United States and acculturative stress, whereas separation from family increased acculturative stress, in the aforementioned researchers' study, among international students from Europe. In this study, investigators did not find a direct correlation with acculturative stress, but as mentioned previously there was a correlation with dominant culture immersion. This lack of a significant association may be due to a fairly small sample size. The current study did find that students who moved to the United States for pursuing academic study showed lower immersion in the dominant culture. It may be that students who come to another country for educational reasons feel isolated from the dominant culture. More study is needed in this area. Since there were no differences in acculturative stress of both groups of participants, it is important to note that students who have their families nearby still need support to combat stress levels, similar to their counterparts who moved for education only. One possible reason for the lack of differences may be that the world has become more interconnected with easier access to Internet and mobile technologies, thus allowing students to keep in touch with their families, even if they remain in their countries of origin.

The current study found that international students who reported higher immersion in their native cultures experienced higher acculturative stress and that those who reported higher immersion in the U.S. culture experienced lower acculturative stress. Alternatively, native culture immersion was found to be protective against health risk behaviors in some cases (depending on the ethnicity of the student) by Schwartz et al. (2011). In a different study, Schwartz et al. (2013), found that American identification was associated with psychological well being. However, these studies did not include international students. International students may face different challenges than first- and second-generation immigrant college students. These challenges are not limited to lack of family support, immersion in U.S. culture, language barrier which therefore leads to acculturative stress. The current study does show that U.S. culture immersion and speaking English from birth are protective factors against acculturative stress. One possible explanation is that students who are able to partake of U.S. culture and speak English have a smaller acculturative task in front of them which involves learning how to interact with the American educational system, while other students have to learn several

new things. They may have an easier time engaging with other students and obtaining social support. Further study is needed to explore health behaviors and risk factors, as well as coping strategies, in international college students.

The current study should be interpreted in light of several limitations. The participants were recruited through a convenience sample, thus results may not be generalizable to all international students at community colleges. The cross-sectional nature of the current study means that no inferences can be made about causality. The current study did not include a direct measure of psychological stress or coping behaviors. Future studies should be conducted to explore the relationships between acculturation, acculturative stress, and other psychological stressors. The strengths of the current study include the sample, which was drawn from a highly diverse, urban, community college. This study was unique in its focus on cultural immersion in the native and U.S. cultures when compared with other contemporary research.

### **IMPLICATIONS**

Recommendations for future research include measuring academic achievement and exploring its relationship to the acculturative process. Furthermore, direct measurement of students' reported stress coping behaviors are recommended. A future study should also be conducted to analyze how social environments intensify international students stress. Professors and staff who work with international students need to be better informed to effectively meet their unique needs. In conclusion, the current study found an association between cultural immersion, family factors, native language and acculturative stress. Colleges, and especially community colleges with large international student populations, may consider allocating additional resources that directly target acculturative stress for accommodating international students as they undergo the acculturative process. These resources may include staff fluent in a variety of languages, support for English language acquisition, workshops for faculty, students and staff to help support international students, and facilitating opportunities for students to socialize with others who are encountering the same challenges. Since dominant society immersion seems somewhat protective against acculturative stress, student activities that focus on international students partaking of U.S. culture with other students at the college may be helpful for mitigating stress.

## REFERENCES

- Berry, J. W., Kim, U., Minde, T., & Mok, D. (1987). Comparative studies of acculturative stress. *International Migration Review*, *21*(3), 491–511. doi: 10.2307/2546607
- Berry, J. W. (1990). Psychology of acculturation: Understanding individuals moving between cultures. In R. Brislin (Ed.), *Applied cross-cultural psychology* (pp. 232–254). Thousand Oaks, CA: Sage.
- Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology*, *46*(1), 5–34. doi: 10.1111/j.1464-0597.1997.tb01087.x
- Berry, J. W. (2005). Acculturation: Living successfully in 2 cultures. *International Journal of Intercultural Relations*, *29*, 697–712. doi: 10.1016/j.ijintrel.2005.07.013
- BMCC Office of Institutional Research and Assessment. (2016). *Borough of Manhattan Community College-Factsheet Spring 2016*. Retrieved <http://www.bmcc.cuny.edu/iresearch/upload/spring-2016-fact-sheet.pdf>
- Bradley, G. (2000). Responding effectively to the mental health needs of international students. *Higher Education*, *39*(4), 417–433. doi: 10.1023/A:1003938714191
- Cho, Y. (2014). Acculturation, psychological and school adjustment of early study abroad adolescents in terms of stress coping strategy. *Child Studies in Asia – Pacific Contexts*, *4*(1), 13–25. doi: 10.5723/csac.2014.4.1.013
- Crockett, L. J., Iturbide, M. I., Stone, R. A., McGinley, M., Raffaelli, M., & Carol, G. (2007). Acculturative stress, social support, and coping: relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology*, *13*(4), 347–355. doi: 10.1037/1099-9809.13.4.347
- Desa, A., Yusoff, F., & Kadir, N. (2011). Acculturative stress among international postgraduate students at UKM. *Procedia Social and Behavioral Sciences*, *59*, 364–369. doi: 10.1016/j.sbspro.2012.09.287
- Fritz, M., Chin, D., & DeMarinis, V. (2008). Stressors, anxiety, acculturation and adjustment among international and North American students. *International Journal of Intercultural Relations*, *32*, 244–259. doi: 10.1016/j.ijintrel.2008.01.001
- Gillete, K. (2005). *As the world goes to college: International student experiences* (Unpublished dissertation). Retrieved from Dissertation Abstract International, UMI Dissertations Publishing. (3199526)
- Graves, T. (1967) Psychological acculturation in atri-ethnic community. *Southwestern Journal*, *23*, 337–350.
- Hagy, A. P., & Staniec, J. F. (2002). Immigrant status, race, and institutional choice in higher education. *Economics of Educational Review*, *21*, 381–392. doi: 10.1016/S0272-7757(01)00033-4
- Institute of International Education. (2013). *Open Doors Report on International Educational Exchange*. Retrieved from <http://www.iie.org/Who-We->

Are/News-and-Events/Press-Center/Press-releases/2013/2013-11-11-Open-Doors-Data

- Kuo, B. C. (2013). Coping, acculturation, and psychological adaptation among migrants: A theoretical and empirical review and synthesis of the literature. *Health Psychology and Behavioral Medicine, 2*(1), 16-33. doi: 10.1080/21642850.2013.843459
- Lee, J., Koeske, G., & Sales, E. (2004). Social support buffering of acculturative stress: A study of mental health symptoms among Korean international students. *International Journal of Intercultural Relations, 28*, 399-414. doi: 10.1016/j.ijintrel.2004.08.005
- Lewthwaite, M., (1996). A study of international students' perspective on cross-cultural adaptations. *International Journal for the Advancement of Counseling, 19*(2), 167-185. doi: 10.1007/BF00114787
- Mahmood, H. (2014). *An analysis of acculturative stress, sociocultural adaptation, and satisfaction among international students at a non-metropolitan university* (Doctoral dissertation). Western Kentucky University, Bowling Green, KY.
- Mehta, S. (1998). Relationship between acculturation and mental health for Asian Indian immigrants in the United States. *Genetic, Social and General Psychology Monographs, 124*, 61-78.
- Mena, F. J., Padilla, A. M., & Maldonado, M. (1987). Acculturative stress and specific coping strategies among immigrant and later generation college students. *Hispanic Journal of Behavioral Sciences, 9*(2), 207-225. doi: 10.1177/07399863870092006
- Ra, Y., & Trusty, J. (2015). Coping strategies for managing acculturative stress among Asian international students. *International Journal for Advancement of Counseling, 37*(4), 319-329. doi: 10.1007/s10447-015-9246-3
- Redfield, R., Linton, R., & Herskovits, M. T. (1936). Memorandum for the study of acculturation. *American Anthropologist, 38*, 149-152.
- Rickwood, D., Deane, F., Wilson, C, & Ciarrodhi, J., (2005). Young people's help-seeking for mental health problems. *Advances in Mental Health, 4*(3), 218-251.
- Schwartz, S. J., Weisskirch, R. S., Zamboanga, B. L., Castillo, L. G., Ham, L. S. Huynh, Q. L., . . . Cano, M. A. (2011), Dimensions of acculturation: Associations with health risk behaviors among college students from immigrant families. *Journal of Counseling Psychology, 58*(1), 27-41. doi: 10.137/a0021356
- Schwartz, S. J., Waterman, A. S., Umaña-Taylor, A. J., Lee, R. M., Kim, S. Y., Vazsonyi, A. T., . . . Williams, M. K. (2014). Acculturation and well-being among college students from immigrant families. *Journal of Counseling Psychology, 69*(4), 298-318. doi: 10.1002/jclp.21847

- Smith, R. A., & Khawaja, N. G., (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations*, 35, 699–713. doi: 10.1016/j.ijintrel.2011.08.004
- Social Science Research Council Summer Seminar. (1954). Acculturation: An exploratory formulation. *American Anthropologist*, 56, 937–1002.
- Torres, L., Driscoll, M., & Voell, M. (2013). Discrimination, acculturation, acculturative stress, and Latino psychological distress: A moderated mediational model. *Cultural Diversity, Ethnic Minority Psychology*, 18(1), 17–25. doi: 10.1037/a0026710
- Ward, C., & Kennedy, A. (1994). Acculturation strategies: Psychological adjustments and sociocultural competence during cross-cultural transitions. *International Journal of Intercultural Relations*, 18, 422–442. doi: 10.1016/0147-1767(94)90036-1
- Wilton, L., & Constantine, M. G. (2003). Length of residence, cultural adjustment difficulties, and psychological distress symptoms in Asian and Latin American international college students. *Journal of College Counseling*, 6, 177–186. doi: 10.1002/j.2161-1882.2003.tb00238.x
- Yakunina, E. S., Weigold, I. K., Weigold, A., Hercegovac, S., & Elsayed, N. (2013). International students' personal and multicultural strengths: Reducing acculturative stress and promoting adjustment. *Journal of Counseling and Development*, 91(2), 216–223. doi: 10.1002/j.1556-6676.2013.00088.x
- Yeh, C., & Inose, M. (2003). International students reported English fluency, social support, satisfaction, and social connectedness as predictors of acculturative stress. *Counseling Psychology Quarterly*, 16(1), 15–28. doi: 10.1080/0951507031000114058
- Zhang, Y. (2012). *An examination of acculturative stress, perceived social support, and depression among Chinese international students* (Master's thesis). Child and Family Studies Theses, Syracuse University, Syracuse, NY.

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